

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-3 (canceled)

4. (currently amended) The recombinant nucleic acid molecule of claim 6 wherein said nucleotide sequence encodes a fragment of at least 50 amino acids of nonstructural proteins NS3, NS4 or NS5.

Claim 5 (canceled)

6. (currently amended) A recombinant nucleic acid molecule consisting of ~~comprising~~ a nucleotide sequence encoding a ~~fusion protein of~~ hepatitis C virus nonstructural proteins NS3, NS4 and or NS5 ~~protein or any combination thereof~~, wherein said nucleotide sequence is operably linked to regulatory elements, said regulatory elements comprising a promoter, enhancer, polyadenylation sequence, and a 5' untranslated region (5'-UTR), ~~said 5' UTR comprising at least the 9 most 3' nucleotides of a 5' UTR of hepatitis C virus.~~

7. (original) The recombinant nucleic acid molecule of claim 6 wherein said promoter is a cytomegalovirus promoter and said enhancer is a Rous Sarcoma Virus enhancer.

8. (previously presented) A recombinant host cell comprising a nucleic acid molecule of claim 6.

Claims 9-16 (canceled)

17. (currently amended) A method of inducing an immune response against hepatitis C virus in a human uninfected by hepatitis C virus comprising administering to said human a recombinant nucleic acid molecule consisting of ~~comprising~~ a nucleotide sequence encoding a ~~fusion protein of~~ hepatitis C virus nonstructural proteins NS3, NS4, and ~~or~~ NS5, ~~or any~~

~~combination thereof~~, in an amount effective to induce an immune response against hepatitis C virus.

Claims 18-19 (canceled)

20. (currently amended) The method of claim 17 wherein said nucleotide sequence encodes a fragment of at least 50 amino acids of nonstructural proteins ~~selected from the group consisting of~~ NS3, NS4, or and NS5.

21. (previously presented) The method of claim 17 wherein said nucleotide sequence is operably linked to regulatory elements functional in human cells.

22. (original) The method of claim 21 wherein said nucleotide sequence is operably linked to a promoter, enhancer, polyadenylation sequence, and optionally 5' UTR of hepatitis C virus.

23. (original) The method of claim 22 wherein said promoter is a cytomegalovirus promoter and said enhancer is a Rous Sarcoma Virus enhancer.

24. (original) The method of claim 17 wherein said immune response comprises a cellular response.

25. (original) The method of claim 17 wherein said immune response comprises a humoral response.

26. (original) The method of claim 17 wherein said recombinant nucleic acid molecule is in a pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent.

27. (original) The method of claim 26 wherein said pharmaceutical composition further comprises a facilitator.

DOCKET NO.: MGH-0026
Application No.: 09/600,493
Office Action Dated: April 9, 2004

PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116

28. (original) The method of claim 27 wherein said facilitator is bupivacaine.

Claims 29-46 (canceled)

47. (new) The recombinant nucleic acid molecule of claim 6, wherein said 5'-UTR comprises a 5' UTR of hepatitis C virus.

48. (new) The recombinant nucleic acid molecule of claim 47, wherein said 5'-UTR comprises at least the 9 most 3' nucleotides of a 5' UTR of hepatitis C virus.